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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/580,783	03/31/2007	Yitzhak Meyuchas	CM05812EI	6454
24273	7590	04/16/2009		
MOTOROLA, INC 1303 EAST ALGONQUIN ROAD IL01/3RD SCHAUMBURG, IL 60196			EXAMINER	
			JENNISON, BRIAN W	
			ART UNIT	PAPER NUMBER
			3742	
			NOTIFICATION DATE	DELIVERY MODE
			04/16/2009	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

Docketing.US@motorola.com

# Office Action Summary

**Application No.**

10/580,783

**Applicant(s)**

MEYUCHAS ET AL.

**Examiner**

BRIAN JENNISON

**Art Unit**

3742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/ICE)  
Paper No(s)/Mail Date 5/26/2006
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 1, 3-4, 6-7, 11-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Brandt et al (US 2002/0079304) as cited by applicant.**

Brandt et al teaches:

**Regarding Claim 1:** A computer component heater (See Paragraph 4 and Abstract.) operably coupled to a pulse width modulation (PWM) power controller, (Logic unit 6 is connected to the heating element and provides a pulse width modulated signal. See Paragraph 0019.) said power controller in operation varying a PWM duty cycle in relation to the voltage of the power source supplying the heater. (See Paragraph 0012.)

**Regarding Claim 3:** The memory is writable and parameters including duty cycle may be changed since EEPROM memory may be easily configured. See Paragraph 0016.

**Regarding Claim 4:** The logic unit measures current and voltage (wattage may be determined) from the heater and varies the current supply to the heating element. This may be done by varying the duty cycle. See Paragraphs 0017-0018.

**Regarding Claim 6:** The heating element and logic unit 6 are connected to a power supply, usually the onboard electrical system of the vehicle. Therefore, the logic controller and heating element may operate independently of the LCD. **See Paragraph 0015.**

**Regarding Claim 7:** The EEPROM memory, where the logic control gets its programmed information from, may contain a threshold temperature which has been programmed by a user. **See Paragraph 0016.**

**Regarding Claim 11:** The heating element and logic unit 6 are connected to a power supply, usually the onboard electrical system of the vehicle. which would include the vehicles battery. **See Paragraph 0015.**

**Regarding Claim 12:** Logic unit 6 is connected to the heating element and provides a pulse width modulated signal. **See Paragraph 0019.** The heatable component is an LCD screen. **See Paragraph 0014 and Figure.**

**Regarding Claim 13:** The LCD comprises a heating element. **See Paragraph 0014.**

**Regarding Claim 14:** Logic unit 6 (PWM power controller) is connected to the heating element and provides a pulse width modulated signal. **See Paragraph 0019.**

**Regarding Claim 15:** The method is known from the device. Logic unit 6 is connected to the heating element and provides a pulse width modulated signal. **See Paragraph 0019.** The logic unit measures current and voltage (wattage may be determined) from the heater and varies the current supply to the heating element. This may be done by varying the duty cycle. **See Paragraphs 0017-0018.**

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 2, 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brandt et al in view of Barrett (US 5,483,149).**

The teachings of Brandt et al have been discussed above.

Brandt fails to teach:

**Regarding Claim 2:** Apparatus wherein the PWM duty cycle is related to the voltage of the heater's power source via a lookup table.

**Regarding Claim 5:** Apparatus wherein the heater comprises two heating elements with a total resistance in the range of 10 to 50 Ohms.

Barrett teaches:

**Regarding Claim 2:** The duty cycle is calculated using equation 6 or a look up table.

**See Column 4, Lines 60-68.**

**Regarding Claim 5:** Equation 1 shows the resistance of the heating element to be 19.2 ohms. The fact that there are 2 heating elements is a mere duplication of parts. If two identical heating elements are supplied the total resistance would be between 10 and 50 ohms.

In view of Barrett's teachings it would have been obvious to one of ordinary skill in the art at the time of the invention to include with the teachings of Brandt, the look up table and the heating elements, since Barrett teaches a look up table to calculate the duty cycle and the heating elements with a specific resistance for providing a specific wattage to the component.

**5. Claims 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brandt et al in view of McMahan et al (US 6,002,240) as cited by applicant.**

The teachings of Brandt et al have been discussed above.

Brandt fails to teach:

**Regarding Claim 9:** Apparatus, which is operable such that a user may select a maximum heating duration.

**Regarding Claim 10:** Apparatus which is operable such that a user may select a battery protection voltage threshold.

McMahan teaches:

**Regarding Claim 9:** Heating occurs for a predetermined time which is selected by a user at a point between programming and use of the device. **See Column 7, Lines 5-10.**

**Regarding Claim 10:** The battery charge level, or voltage level, is used to determine if the temperature of the battery may be threatened. **See Column 7, Lines 1-6.**

In view of McMahan's teachings it would have been obvious to one of ordinary skill in the art at the time of the invention to include with the teachings of Brandt, the maximum heating duration and battery protection threshold since McMahan teaches heating for a predetermined time to bring the battery to a safe temperature and the voltage level protection so the battery is not damaged.

**6. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brandt in view of Ling et al (US 6,574,061).**

The teachings of Brandt et al have been discussed above.

Brandt fails to teach:

**Regarding Claim 8:** Apparatus, which is operable such that a user may select a degree of hysteresis between temperature thresholds at which to activate and deactivate the heater.

Ling teaches:

**Regarding Claim 8:** The hysteresis range is selected for the temperature. Current is applied if the temperature falls out of this range. **See Column 2, Lines 15-24.**

In view of Ling's teachings it would have been obvious to one of ordinary skill in the art at the time of the invention to include with the teachings of Brandt, the degree of hysteresis since Ling teaches a hysteresis range for applying current to bring the temperature back into the selected range.

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.



Lutz et al (US 5,834,131) teaches a self warming battery.

MacFarlane et al (US 6,575,156) teaches a battery warmer.

Satoh (US 6,806,445) teaches an image forming apparatus with a heater control.

Bishop et al (US 4,987,289) teaches a LCD heating system.

Brandt et al (US 6,678,033) teaches a LCD with heater.

Brandt et al (US 6,317,178) teaches a LCD with heater.

Brandt et al (US 6,128,053) teaches a LCD with heater.

Wolkowicz et al (US 5,886,763) teaches a LCD heater.

McCann (US 5,818,010) teaches a LCD with heater controller.

Lynam et al (US 5,808,777) teaches an electrochromic mirror with a heater.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRIAN JENNISON whose telephone number is (571)270-5930. The examiner can normally be reached on M-Th 7:00AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tu Hoang can be reached on 571-272-4780. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/BRIAN JENNISON/  
Examiner, Art Unit 3742

4/3/2009

/TU B HOANG/

Supervisory Patent Examiner, Art Unit 3742